

female, are narrowly brown on hind margin, showing the incisures.

It will be seen, by comparing descriptions, that the present specimens have (at least in the male) more golden pollen on abdomen than the San Rafael (Vera Cruz) specimen, thus indicating a tendency toward still another variety.

GYMNOSOMATIDAE.

(9) *Gymnosoma fuliginosa* Desv. One male, August 31; and three females, August 30 and Sept. 3; all on flowers of *Solidago canadensis* on acequia banks within the town of Las Cruces, taken by the writer in 1897. The number of specimens previously taken in New Mexico is seven.

OCYPTERIDAE.

(10) *Ocyptera euchenor* Walk. One male, August 31; and one female, Sept. 2; both on flowers of *Solidago canadensis* on acequia banks within the town of Las Cruces, taken by the writer in 1897. Length, 10 to 10½ mm. These are additional to the specimen taken by

Cockerell, August 5, 1897, on flowers of *Bigelovia wrightii* in the Mesilla Valley, and already recorded (Psyche, Dec., 1897, pp. 149-150).

Mr. D. W. Coquillett, in his "Revision of Tachinidae," calls this species *O. carolinae* Desv. I have no copy of Desvoidy's *Myodaires* at hand to verify this reference.

14. *Ocyptera euchenor* var. *dosiades* Walk. One female, August 25, on flowers of *Clematis ligusticifolia*, on acequia banks within the town of Las Cruces, taken by the writer in 1897. Length, 7 mm.

This is not the *dosiades* of Mr. D. W. Coquillett, in his "Revision of Tachinidae," as it has the two pairs of marginal macrochaetae, as well as the smaller apical pair. It is the form which I have heretofore always referred to *dosiades* Walk. When Mr. Coquillett adduces some evidence to show that Walker's types of *dosiades* possessed no apical pair of bristles, and but one marginal pair, I will revise the present determination.

DESCRIPTION OF AN UNUSUAL SAW-FLY LARVA BELONGING TO THE XYELINAE.

BY HARRISON G. DYAR, WASHINGTON, D. C.

As far as I can ascertain there is no description extant of any larva of the subfamily Xyelinae of the Tenthredinidae. Cameron says in his monograph that the larvae are without feet, and

Dalla Torre in his catalogue gives a note stating that *Xyela jullii* lives on *Betula alba*, but without reference to any description.

In the vicinity of New York there has

been known to collectors for some time a curious larva resembling the excrement of birds. It is found on the young tender leaves of the hickory and butter-nut in May and disappears by the end of that month, not to reappear till the following season. The larva is solitary, though when abundant, several may occur on one leaf. It is nearly footless, the short feet being only feebly functional and the larva wriggles around very like a *Lyda* when out of its web. It rests by curling around a portion of leaf or stem in a single spiral and only spins a few inconspicuous threads of silk. It lives freely exposed, protected, doubtless from birds by its resemblance to a noxious object. It is very unusual for saw fly larvae to be highly specialized enough to mimic particular objects; but in this case the resemblance is remarkably exact, as New York collectors will testify.

Mr. W. H. Ashmead, in a paper entitled "a synopsis of North American *Xyelidae*," read before the Washington Entomological society in Dec., 1897, described two new genera and gave a generic table of this group. He has kindly furnished me with an advance copy of this table which is given below.

Pleuroneura aviigrata n. sp. ♀ Shining blue-black, submetallic. Labrum emarginate, with a terminal white line and pair of large round white spots; palpi partly whitish. Joint and extreme base of posterior femora and last four joints of posterior tarsi white. Abdomen and legs shining, head and thorax dull. Nervures black, wings nearly hyaline,

a trace of smoky bordering the veins of fore wings. Hind tibiae hairy and with six long spurs. Length 13 mm.; expanse of wings, 29 mm.

Larva. Last four stages observed.

Stage, width of head 0.8 mm. Head shining brown. Body shining brown dorsally, milk white subventrally, setiferous tubercles black, not very large, two transverse rows per segment in dorsal aspect, three in lateral view. The segments are 4-annulate, a row of four or five tubercles on each side of second (spiracular) and third annulets, a half row of three tubercles on the lateral portion of the fourth annulet; subventral folds with scarcely distinguishable rudimentary tubercles. Legs colorless; a narrow obscure white dorsal line. Feet all unusually small; thoracic ones black ringed; abdominal ones on joints 6-12 and 13; above the anus a pair of low conic setiferous warts. The tubercles usually have two setae each.

The larva wriggles over the leaf when it wishes to move, using the feet poorly.

Next stage. Head 1.5 mm. wide, shining brown, eye and jaws black. The white color formerly confined to the subventral region is now present also as dorsal patches between joints 4-5, 5-6, 11-12, and top of joint 13 posteriorly. Tubercles brown except the two lower of the anterior row which are still black. Otherwise as before.

Stage before last. Width of head 2.1 mm. Much the same but the brown and white still more mottled; a broken white dorsal line; nearly all the dorsum of joint 5 white.

Last Stage. Head rounded, dark brown, shining, shading paler in the sutures of mouth parts; width 2.5 mm. Antennae brown, pale ringed, palpi black. Thoracic feet black at base; then pale with testaceous rings. Segment indistinctly 4-annulate, the tubercles watery, concolorous and obscure, nearly obsolete and difficult to distinguish. Dorsum shining olivaceous brown; a broken narrow white dorsal line; a white patch on joints 3, 4, on 6 centrally to 11 centrally, patches on 12,

13 and anal plates, milk white from spiracles to feet, extending higher on joints 4-6 and 11-12, mottled. End of joint 13 swollen above, light brown; joint 3 a little enlarged dorsally. In the natural position of rest, curled spirally around a leaf petiole, the two largest white patches adjoin each other.

Enters the earth without ultimate stage.

Single brooded, feeding only on immature leaves.

Staten Island, N. Y., June 1; Bellport, Long Island; Bedford Park, N. Y., May 25; Fort Lee and Plainfield, N. J., May 16 (the youngest one).

Table of genera of Nyelidae.

(By W. H. Ashmead.)

1. Front wings with the intercostal vein uniting with the subcostal; hind wings with one complete submarginal and one discoidal cell. 3

Front wings with the intercostal vein separated, distinct from the subcostal; hind wings with two complete submarginal cells and one discoidal cell. 2

2. Antennae 9-jointed, the six terminal joints very short, together not longer than the scape and less than half the length of the third joint; clypeus with a median emargination; claws with an erect tooth before the tip *Macroxyela* Kirby.

Antennae 10-jointed, the seven terminal

joints very short, together not longer than the scape or less than one fourth the length of the third joint; clypeus triangularly produced in the middle; claws bifid; all tibiae very spinous, hind tibiae with 4 long spurs beneath between middle and apex

Megaxyela Ashm.

(type *N. major* Cress.)

Antennae 12-jointed, the nine terminal joints much shortened, together much shorter than the third joint; both transverse radial nervures originating from the second cubital cell; clypeus and tibiae as in *Megaxyela*; claws with a large erect tooth before middle

Pleuroneura Konow.

3. Antennae 12-jointed, the nine terminal joints slender, lengthened, together as long or longer than the third joint; claws long, slender, with a very minute, nearly obsolete tooth beneath a little beyond the middle 4

4. Front wings with both transverse radial nervures originating from the second cubital cell, rarely with the second transverse radial interstitial; clypeus with a median ridge which is slightly extended beyond the anterior margin, but scarcely triangularly produced *Manoxyela* Ashm.

(Type *M. californica* Ashm.)

Front wings with the first transverse radial nervure originating from the second cubital cell, the second originating from the third cubital; clypeus triangularly produced anteriorly *Nyela* Dalman.

RUDOLF LEUCKART.

So many and such valuable contributions to our knowledge of the morphology and physiology of insects have come from the laboratories of the late Professor R. Leuckart of the University of Leipzig, that a few words of appreciation of this master zoologist's labors and of regret for his loss can not be amiss in the pages of *PSYCHE*. Dr. Leuckart, who died in February in his seventy

sixth year, was a zoologist of extraordinary range of study, touching in his work the anatomy and life-history of the most widely separated groups of animals, working indeed through the whole animal realm from Amoeba to Man. His largest contributions are those to the knowledge of the parasitic worms, but his enlightening studies of the micropyle and fertilization of insect eggs (1855), the reproduction and development of the Pupipara (1858), the alternation of generations, and parthenogenesis among